

Docket:	:	<u>A.08-02-001</u>
Exhibit Number	:	<u>DRA-3</u>
Commissioner	:	<u>Simon</u>
ALJ	:	<u>Wong</u>
Witness	:	<u>Sabino</u>



**DIVISION OF RATEPAYER ADVOCATES  
CALIFORNIA PUBLIC UTILITIES COMMISSION**

**DRA Report on the Application of  
San Diego Gas & Electric and  
Southern California Gas Company  
Biennial Cost Allocation Proceeding  
Phase II**

**Cost Allocation Issues SoCalGas**

San Francisco, California  
November 21, 2008

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1                                   **Southern California Gas Company**  
2                                   **Cost Allocation Issues**

3   **I.       INTRODUCTION**

4           Pursuant to Phase Two scope of issues in Commissioner Simon and  
5   Administrative Law Judge (“ALJ”) Wong’s Ruling dated April 17, 2008 in Application  
6   (A.)08-02-001, this exhibit presents the Division of Ratepayer Advocates’ (“DRA”)   
7   analyses and recommendations regarding Southern California Gas Company’s  
8   (“SoCalGas”) proposal on “whether the updated cost allocations and rates are just  
9   and reasonable and should be adopted.”<sup>1</sup> In this application, SoCalGas proposes to  
10   abandon the current Commission-adopted Long Run Marginal Cost (“LRMC”) New  
11   Customer Only (“NCO” or collectively referred to as “LRMC/NCO”) cost allocation  
12   methodology for its natural gas transportation base margin costs. SoCalGas instead  
13   proposes that the Commission adopt the Embedded Cost (“EC”) methodology for  
14   the cost allocation of its base margin in lieu of the Commission-adopted LRMC/NCO  
15   methodology. SoCalGas has submitted rate designs for both an LRMC-based and  
16   an EC-based cost allocation. SoCalGas proposes the EC-based cost allocation as  
17   the “preferred” methodology, while it offers the LRMC-based methodology Rental  
18   method (collectively referred to as LRMC/Rental) as a “compliance” case only. The  
19   Commission has already determined that LRMC/NCO results in just and reasonable  
20   rates in D.00-04-060. Compared to the LRMC/NCO cost allocation approach, the  
21   proposed EC-based cost allocation approach is not just and reasonable for many  
22   reasons for SoCalGas, including that it will improperly allocate a greater share of the  
23   SoCalGas base margin to core customers, resulting in higher rates for SoCalGas’  
24   core customers. In this testimony, DRA provides its recommendations on the cost  
25   allocation methodology for SoCalGas’ base margin to its different customer classes.

26           The Commission first adopted the LRMC methodology for California gas  
27   utilities in D.92-12-058. Through the years, the Commission affirmed its preference

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<sup>1</sup> See Ruling, p. 7.

1 for the LPMC methodology in several other subsequent cost allocation decisions in  
2 proceedings before the Commission for both gas utilities and electric utilities.<sup>2</sup> In  
3 D.00-04-060, the decision adopted the current LPMC/NCO cost allocation approach  
4 when it approved a Joint Recommendation (“JR”) of settlement parties in that  
5 proceeding. D.00-04-069 states that “the JR would adopt the LPMC/NCO method,  
6 which is the current method adopted for PG&E, SDG&E, and SCE, while rejecting  
7 the replacement cost adder.”<sup>3</sup> For reasons explained in this testimony, DRA  
8 continues to support the Commission’s preference for LPMC/NCO for SoCalGas as  
9 well as the Commission’s general guiding principles on cost allocation matters in  
10 reaching its conclusions and recommendations. The Commission’s cost allocation  
11 guidelines focus on the principles of cost incurrence, economic efficiency, and equity  
12 as important considerations in selecting the appropriate allocation factors that are  
13 both just and reasonable.<sup>4</sup> As established in the past LPMC decisions, the results  
14 of both the LPMC and EC cost allocation approaches are ultimately scaled up or  
15 down to reconcile with the Commission-approved base margin (or revenue  
16 requirement) in the General Rate Case proceeding. The scaling of costs ensures  
17 that the utility has the opportunity to recover its authorized base margin.<sup>5</sup>

## 18 **II. SUMMARY OF RECOMMENDATIONS**

19 In summary, DRA recommends:

- 20 • That the Commission retain the adopted LPMC New Customer Only  
21 (“NCO”) method for the cost allocation of the SoCalGas natural gas  
22 transportation base margin. SoCalGas has not demonstrated that either  
23 its proposed LPMC/Rental method or its proposed EC method is a more  
24 equitable alternative to the current LPMC/NCO method. As DRA explains

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<sup>2</sup> See some of these Decisions in (D.) 93-05-066, D.95-12-053, D.96-04-050, D.97-08-055, D.97-04-082, D.97-08-062, D.98-06-073, D.00-04-060, D.01-11-001, and D.05-06-029.

<sup>3</sup> D.00-04-060, p. 8.

<sup>4</sup> See D.86-12-009, D.90-07-055, and D.92-12-058.

<sup>5</sup> See D.92-12-058.

1 later in this testimony, the LPMC/NCO method recommended by DRA is  
2 without any of the replacement cost adders in marginal distribution and  
3 customer costs;

- 4 • That the Commission adopt the results of the LPMC/NCO cost allocation  
5 for the SoCalGas base margin because they are just and reasonable;
- 6 • That the Commission direct SoCalGas to modify its compliance filing to  
7 actually comply with the current adopted cost allocation methodology of  
8 LPMC/NCO;
- 9 • That in the alternative, if the Commission were to reject DRA's  
10 recommendation to continue to adopt LPMC/NCO for SoCalGas and  
11 adopt instead the EC methodology, the Commission must modify  
12 components of the proposed EC, as it currently stands. The SoCalGas  
13 EC filing assumes 70 Bcf of core storage inventory reservations while the  
14 Settlement Agreement ("SA") in Phase I of this proceeding proposes 79  
15 Bcf of core storage inventory reservations. The SA adopts the embedded  
16 cost methodology for the SoCalGas/SDG&E gas storage function only.<sup>6</sup>  
17 The Commission should allow further consideration of the proposed EC  
18 allocation methodology for the remainder of the SoCalGas functions for  
19 natural gas base margin transportation costs to customers for the BCAP  
20 period 2009 to 2011 subject to SoCalGas modifying certain elements of  
21 the proposed embedded cost allocation identified by DRA resulting in a  
22 more equitable allocation;
- 23 • That the Commission order the update of the proposed cost allocation  
24 methods based on the combined core portfolio storage amounts pursuant  
25 to a Commission approval of the Settlement Agreement in BCAP Phase 1  
26 of this proceeding;
- 27 • That SoCalGas' modifications to the proposed embedded cost method  
28 should, at a minimum, provide the same percentage share of cost  
29 allocation as the LPMC/NCO shown in this testimony, and include:

- Modifying the Administrative & General (A&G) cost allocation by allocating 50% of A&G costs on the basis of the average year throughput, in particular, on an equal cents per therm basis (ECPT);
- Modifying the allocation of the remaining 50% of A&G costs based on O&M costs by using the Multi-factor, including the functionalization of FERC Accounts 920 (A&G Salaries), 921 (Office Supplies & Expense), 926 (Employee Pensions & Benefits), 931 (Rents), 408 (Payroll taxes), 932 (AdmGen Mnt-General Plant) and 389.1 thru 398 (General Plant depreciation) instead of the Labor Factor, and for the general plant returns and taxes functionalization;
- Updating the service line footage based on the latest 2006 data instead of the 2001 data used in the study;
- Updating the storage functional factors based on the most recent storage cost data consistent with the 2007 FERC Form 2 instead of the previous storage data used that was consistent with the 2006 FERC Form 2;
- Using the Average Year Throughput as the customer class allocator (instead of Cold Year Throughput) for the backbone transmission base margin for purposes of consistency with the allocator of the FAR revenue credits on transmission costs authorized in D.06-12-031 (FAR decision); and
- Using the historical embedded cost of meters represented by SoCalGas' net book value of meters as the customer class allocator (instead of the current purchased costs of meters) for customer-related O&M costs for distribution meters and regulators.

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(continued from previous page)

<sup>6</sup> As contemplated in ALJ Wong's PD of November 4, 2008.

1 DRA's review of the SoCalGas Base Margin, its functionalization, and the  
2 cost allocation of these functional categories for the different customer classes yield  
3 the following Core/Non-Core splits as summarized below in Tables 1 and 2. Table -  
4 1 is based on a 70 Bcf storage inventory assumption while Table 2 is based on the  
5 greater storage assumption of 79 Bcf.<sup>7</sup> The total amount of core storage for the  
6 combined core portfolio of SoCalGas and SDG&E that is shown in the LPMC/ Rental  
7 Direct Testimony is based on the Omnibus Proposals of 70 Bcf of core inventory,  
8 327 MMcfd of core injection, and 2,225 MMcfd of core withdrawals. Therefore, if the  
9 SA is adopted, SoCalGas should update its filing to incorporate the figures in Table  
10 2.

11 In Table 1, DRA compares its LPMC/NCO recommendation with the  
12 SoCalGas "compliance" filing under LPMC/Rental) and the SoCalGas "preferred"  
13 filing under EC. The results for the SoCalGas LPMC/Rental column shown in Table  
14 1 include cost allocation for SDG&E's core storage in the amount presented for Total  
15 Core. Further, the amount shown for Total NonCore in the SoCalGas LPMC/Rental  
16 column includes the cost allocation for Noncore Unbundled storage. Table 1 shows  
17 that under the DRA recommended LPMC/NCO approach, SoCalGas core  
18 customers will have an 84.8% share of the base margin, while noncore customers  
19 will have a 15.2% share of the base margin. Under both the LPMC/Rental and the  
20 SoCalGas EC proposals, the SoCalGas core customers will have a greater share of  
21 the base margin, at 87.5% and 89.2% of the base margin, respectively. The  
22 SoCalGas noncore customers will have a lower share of the base margin, at 12.5%  
23 and 10.8% of the base margin, respectively.

24 In Table 2 shown in the succeeding page, DRA provides the same  
25 comparisons but with the LPMC/NCO, LPMC/Rental, and EC results based on the  
26 Settlement Agreement in Phase I of this BCAP that provides for 79 Bcf of core  
27 inventory, 369 MMcfd of core injection, and 2,225 MMcfd of core withdrawals. The  
28 results in Table 2 similarly affirm the results shown in Table 1.

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<sup>7</sup> The 79 Bcf is pursuant to the SA pending before the Commission in Phase I of this proceeding A.08-02-001.

1 In Tables 3 and 4, DRA provides a summary of the results of the cost  
2 allocation by function (in \$Ms and in %, respectively) for each of the LRMC/NCO,  
3 LRMC/Rental, and the EC based on the 70 Bcf core storage reservation.

4 Table 3 shows what shares of the base margin the three different cost  
5 allocation methods would assign by each functional area. For example, in Table 3,  
6 the SoCalGas EC proposal would assign the most costs to the customer-related  
7 function compared to either LRMC/NCO or rental approaches. Further, Table 3 also  
8 shows that the LRMC/NCO approach would assign the most costs to the demand-  
9 related portion of distribution function compared to either the LRMC/Rental or the  
10 SoCalGas EC proposal.

11 In Tables 5 and 6, DRA provides the same information based on the 79 Bcf  
12 core storage reservations proposed in the Phase I Settlement Agreement. These  
13 two tables affirm the results indicated in the prior Tables 3 and 4.



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**Table 1**  
**Summary Results of SoCalGas Base Margin Allocation Methods**  
**[in \$Mn and Percent Share By Customer Class]**

**Based on 70 Bcf Core Storage**

Customer Class	DRA Recom. LRMC (NCO)	DRA As % of Total System	SCG Proposed EC	SCG EC as % of Total System	SCG Proposed LRMC (Rental)	SCG LRMC as % of Total System	Amt SCG EC> DRA	Percent SCG EC> DRA	Amt SCG LRMC>DRA	Percent SCG LRMC>DRA
(a)	(b)	(c )	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Residential	\$1,112.9	70.8%	\$ 1,201.9	76.5%	\$ 1,143.9	72.8%	\$ 89.0	8.0%	\$ 31.0	2.8%
Core C&I	\$ 205.5	13.1%	\$ 193.4	12.3%	\$ 214.3	13.6%	\$ (12.1)	(5.9)%	\$ 8.8	4.3%
NR A/C	\$0.1	0.0%	\$ 0.04	0.0%	\$ 0.1	0.0%	\$ (0.0)	(38.4)%	\$ 0.00	6.6%
Gas Engine	\$ 1.2	0.1%	\$ 1.9	0.1%	\$ 4.1	0.3%	\$ 0.7	59.8%	\$ 2.9	242.4%
NGV	\$ 7.3	0.5%	\$ 4.2	0.3%	\$ 6.3	0.4%	\$ (3.1)	(42.8)%	\$ (1.0)	(14.3)%
Total Core	\$1,332.6	84.8%	\$ 1,401.5	89.2%	\$ 1,374.3	87.5%	\$ 68.8	5.2%	\$ 41.7	3.1%
NonCore C&I	\$ 77.1	4.9%	\$ 45.6	2.9%	\$ 64.3	4.1%	\$ (31.5)	(40.9)%	\$ (12.8)	(16.6)%
EG	\$ 74.5	4.7%	\$ 53.6	3.4%	\$ 58.0	3.7%	\$ (20.9)	(28.0)%	\$ (16.50)	(22.2)%
EOR	\$ 5.1	0.3%	\$ 3.9	0.3%	\$ 4.6	0.3%	\$ (1.1)	(22.6)%	\$ (0.5)	(10.0)%
Total Retail NonCore	\$156.6	10.0%	\$ 103.1	6.6%	\$126.8	8.1%	\$ (53.5)	(34.2)%	\$ (29.8)	(19.0)%
Total WS & Intl	\$ 46.3	2.9%	\$ 37.2	2.4%	\$ 34.6	2.2%	\$ (9.1)	(19.6)%	\$ (11.7)	(25.2)%
Total NonCore	\$238.2	15.2%	\$ 169.4	10.8%	\$ 196.5	12.5%	\$ (68.8)	(28.9)%	\$ (41.7)	(17.5)%
Total System	\$ 1,570.8	100.0%	\$ 1,570.8	100.0%	\$1,570.8	100.0%	\$ 0.0	0.0%	\$0.00	0.0%

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6 Source: SoCalGas Workpapers on LRMCM and Embedded Costs as revised October 2008.

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**Table 2**  
**Summary Results of SoCalGas Base Margin Allocation Methods**  
**[in \$Mn and Percent Share By Customer Class]**

**Based on 79 Bcf Core Storage**

Customer Class	DRA Recom. LRMC (NCO)	DRA As % of Total System	SCG Proposed EC	SCG EC as % of Total System	SCG Proposed LRMC (Rental)	SCG LRMC as % of Total System	Amt SCG EC> DRA	Percent SCG EC> DRA	Amt SCG LRMC>DRA	Percent SCG LRMC>DRA
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Residential	\$ 1,117.7	71.2%	\$ 1,204.5	76.7%	\$ 1,148.5	73.1%	\$ 86.8	7.8%	\$ 30.8	2.8%
Core C&I	\$ 206.9	13.2%	\$ 193.7	12.3%	\$ 215.9	13.7%	\$ (13.2)	(6.4)%	\$ 9.0	4.4%
NR A/C	\$ 0.1	0.0%	\$ 0.0	0.0%	\$ 0.1	0.0%	\$ (0.0)	(38.3)%	\$ 0.0	6.7%
Gas Engine	\$ 1.2	0.1%	\$ 1.9	0.1%	\$ 4.1	0.3%	\$ 0.7	58.2%	\$ 2.9	240.1%
NGV	\$ 7.4	0.5%	\$ 4.2	0.3%	\$ 6.3	0.4%	\$ (3.2)	(43.1)%	\$ (1.0)	(14.3)%
Total Core	\$ 1,339.4	85.3%	\$ 1,404.3	89.4%	\$ 1,381.1	87.9%	\$ 64.9	4.8%	\$ 41.7	3.1%
NonCore C&I	\$ 77.6	4.9%	\$ 45.7	2.9%	\$ 64.8	4.1%	\$ (31.8)	(41.0)%	\$ (12.8)	(16.5)%
EG	\$ 75.4	4.8%	\$ 53.9	3.4%	\$ 58.9	3.8%	\$ (21.5)	(28.6)%	\$ (16.5)	(21.9)%
EOR	\$ 5.1	0.3%	\$ 3.9	0.3%	\$ 4.6	0.3%	\$ (1.2)	(23.0)%	\$ (0.5)	(9.9)%
Total Retail NonCore	\$ 158.1	10.1%	\$ 103.6	6.6%	\$ 128.3	8.2%	\$ (54.6)	(34.5)%	\$ (29.8)	(18.8)%
Total WS & Intl	\$ 46.9	3.0%	\$ 37.3	2.4%	\$ 35.2	2.2%	\$ (9.6)	(20.5)%	\$ (11.7)	(24.9)%
Total NonCore	\$ 231.4	14.7%	\$ 166.5	10.6%	\$ 189.7	12.1%	\$ (64.9)	(28.1)%	\$ (41.69)	(18.0)%
Total System	\$ 1,570.8	100.0%	\$ 1,570.8	100.0%	\$ 1,570.8	100.0%	\$ 0.0	0.0%	\$ 0.00	0.0%

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Source: SoCalGas Workpapers on LRMC and Embedded Costs as Revised October and November 2008.

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Table 3

Summary Cost Allocation By Function (\$Mn) For 70 Bcf

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	Cust costs	MPD costs	HPD Costs	BB Trans costs	Local Trans costs	Stor Seasnl	Stor Load Bal	Non-DSM Mktg	Unco llecti bles	NGV Comp Adder	Total Core	Total NonCore	Total System
NCO	\$556.9	\$ 457.4	\$ 102.3	\$ 20.0	\$ 105.9	\$ 39.3	\$ 2.8	\$ 36.4	\$ 4.8	\$ 1.3	\$1,327.0	\$ 243.8	\$1,570.8
Rental	\$786.5	\$338.2	\$ 75.6	\$ 14.8	\$ 78.3	\$ 39.3	\$ 2.8	\$ 26.9	\$ 4.9	\$ 1.3	\$1,368.7	\$ 202.1	\$1,570.8
EC	\$945.9	\$270.6	\$ 28.5	\$ 36.7	\$ 36.1	\$ 41.7	\$ 3.8	\$ 38.2	\$ -	\$ -	\$1,401.5	\$169.4	\$1,570.8

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Source: SoCalGas Workpapers for LPMC and Embedded Costs as Revised October 2008.

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Table 4

Summary Cost Allocation By Function (As % of Total System) For 70 Bcf

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	Cust costs	MPD costs	HPD Costs	BB Trans costs	Local Trans costs	Stor Seasnl	Stor Load Bal	Non-DSM Mktg	Unco llecti bles	NGV Comp Adder	Total Core	Total NonCore	Total System
NCO	35.4%	29.1%	6.5%	1.3%	6.7%	2.5%	0.2%	2.3%	0.3%	0.1%	84.5%	15.5%	100.0%
Rental	50.1%	21.5%	4.8%	0.9%	5.0%	2.5%	0.2%	1.7%	0.3%	0.1%	87.1%	12.9%	100.0%
EC	60.2%	17.2%	1.8%	2.3%	2.3%	2.7%	0.2%	2.4%	0.0%	0.0%	89.2%	10.8%	100.0%

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Table 5  
Summary Cost Allocation By Function (\$Mn) For 79 Bcf

	Cust costs	MPD costs	HPD Costs	BB Trans costs	Local Trans costs	Stor SeasnI	Stor Load Bal	Non-DSM Mktg	Uncollectibles	NGV Comp Adder	Total Core	Total NonCore	Total System
NCO	\$556.9	\$ 457.4	\$102.3	\$ 20.0	\$ 105.9	\$ 44.9	\$ 3.4	\$ 36.4	\$ 4.8	\$ 1.3	\$1,333.2	\$ 232.1	\$1,570.8
Rental	\$786.5	\$338.2	\$ 75.6	\$14.8	\$78.3	\$ 44.9	\$ 3.4	\$26.9	\$ 4.9	\$1.3	\$1,374.9	\$ 195.9	\$1,570.8
EC	\$945.9	\$270.6	\$ 28.5	\$ 36.7	\$ 36.1	\$44.9	\$ 3.4	\$ 38.2	\$ -	\$ -	\$ 1,404.3	\$ 166.5	\$1,570.8

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Source: SoCalGas Workpapers for LPMC and Embedded Costs as Revised November 2008.

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Table 6

Summary Cost Allocation By Function (As % of Total System) For 79 Bcf

	Cust costs	MPD costs	HPD Costs	BB Trans costs	Local Trans costs	Stor SeasnI	Stor Load Bal	Non-DSM Mktg	Uncollectibles	NGV Comp Adder	Total Core	Total NonCore	Total System
NCO	35.4%	29.1%	6.5%	1.3%	6.7%	2.9%	0.2%	2.3%	0.3%	0.1%	84.9%	14.8%	100.0%
Rental	50.1%	21.5%	4.8%	0.9%	5.0%	2.9%	0.2%	1.7%	0.3%	0.1%	87.5%	12.5%	100.0%
EC	60.2%	17.2%	1.8%	2.3%	2.3%	2.9%	0.2%	2.4%	0.0%	0.0%	89.4%	10.6%	100.0%

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### 1     **III.     DISCUSSION / ANALYSIS OF DRA RECOMMENDATIONS**

2             SoCalGas describes itself as the largest natural gas distribution utility in North  
3     America, with over 2,700 miles of gas transmission lines, 131 BCF of storage  
4     inventory, and over 87,000 miles of gas distribution mains and services.<sup>8</sup> The  
5     physical configuration of SoCalGas' gas system is fully integrated and consists of  
6     underground storage fields, and a gas transmission system that serves both a  
7     backbone and local transmission function.<sup>9</sup> The SoCalGas distribution system is  
8     composed of both high- and medium-pressure systems. SoCalGas delivers gas to  
9     over five million retail customers over its backbone and local transmission system  
10    and its distribution system, and to four wholesale and one international customer.

11            SoCalGas has proposed a base margin of about \$1.57 billion that it intends to  
12    allocate among its various customer groups in this proceeding. SDG&E, the co-  
13    Applicant in this proceeding, is an affiliate of SoCalGas and is also a wholesale  
14    customer of SoCalGas. Both SoCalGas and SDG&E are subsidiaries of their parent  
15    company Sempra Energy. DRA Exhibit 4 provides the analysis and  
16    recommendations for SDG&E.

#### 17           **A. Overview of SDG&E's and/or SoCalGas' Proposal**

18            DRA's review of the proposed cost allocation is based on the Joint Applicant's  
19    Prepared Testimony and Errata in October 2008 as well as its workpapers,  
20    discovery responses, and clarifications received by the DRA by mail, email, and  
21    telephone conversations and relevant Commission decisions.

22            The current Commission-adopted cost allocation methodology for the  
23    SoCalGas base margin is the Long Run Marginal Cost (NCO). This methodology  
24    applies to the utility's base margin revenue requirement which is the basic gas  
25    transportation service revenue requirement including customer costs (including  
26    service lines and meter), distribution costs (including medium and high pressure),

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<sup>8</sup> Emmrich Testimony, p.18.

<sup>9</sup> D.06-04-033 approved the SoCalGas/SDG&E system integration.

1 and storage and transmission costs. The gas commodity cost is not part of the base  
2 margin. Regulatory accounts and other accounts outside the base margin but that  
3 are part of the utility's transportation revenue requirements, are referred to as "non-  
4 base margin." The other costs; such as, Energy Efficiency and Low Income  
5 programs, Self Generation Program, NGV Operation Program, gas acquisition  
6 expenses, and hazardous waste recovery costs are part of non-base margin, and  
7 hence, are also excluded from the scope of the cost allocation study because they  
8 are funded outside of base margin costs.<sup>10</sup>

9 SoCalGas proposes that the EC methodology be used to allocate all gas  
10 transportation base margin costs to customers since it is the "preferred"  
11 methodology.<sup>11</sup> SoCalGas is essentially requesting to change the current cost  
12 allocation methodology. SoCalGas also concurrently submits what it considers to be  
13 a "compliance" case as part of its application in A.08-02-001 based on the  
14 Commission's historical use of LRMC to allocate costs among customers.<sup>12</sup> The  
15 SoCalGas LRMC compliance case is based on the Rental method rather than the  
16 NCO method that was previously adopted in the SoCalGas/SDG&E BCAP decision  
17 in D.00-04-060. SoCalGas is therefore not consistent with D.00-04-060.<sup>13</sup> The  
18 Commission should reaffirm its adoption of the LRMC/NCO methodology, and  
19 therewith adopt DRA's recommendation, and order SoCalGas to modify its LRMC  
20 compliance filing accordingly.

21 The cost allocation issue in this application is two-fold: First, there is the  
22 question of whether or not the Applicants should continue to use the Commission-  
23 adopted LRMC/NCO cost allocation methodology to allocate all its base margin  
24 costs to customers, and if not, should the Commission adopt instead the  
25 LRMC/Rental methodology as the "compliance" case or the EC cost allocation

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<sup>10</sup> Emmrich testimony, p. 14.

<sup>11</sup> A.08-02-001 dated February 4, 2008, p. 7.

<sup>12</sup> Ibid.

<sup>13</sup> D.92-12-058 adopted LRMC methodology for the 3 gas utilities: PG&E, SoCalGas, and SDG&E. D.00-04-060 subsequently adopted the LRMC (NCO) for SoCalGas and SDG&E.

1 methodology “preferred” proposal of SoCalGas, or some alternative hybrid  
2 combination of the cost allocation methodologies as the “compliance” case. Second,  
3 the Commission needs to determine as the scoping memo states, “whether (or not)  
4 the updated cost allocations and rates are just and reasonable and should be  
5 adopted.”<sup>14</sup>

6 In discovery, DRA asked SoCalGas to also provide workpapers and results  
7 based on the LRMC/NCO approach. SoCalGas presents the results for both  
8 methods of the Commission-adopted LRMC and their preferred EC method for the  
9 cost allocation of all base margin costs to their customers. DRA notes that both the  
10 LRMC/Renta) method and EC method submitted by SoCalGas make use of the  
11 same gas storage capacity allocations for the gas storage function. The Settlement  
12 Agreement in Phase I of this proceeding (that is pending Commission approval)  
13 specified the EC method for the gas storage function for the duration of the  
14 agreement. It should be pointed out that the Commission effectively adopted a  
15 hybrid type of cost allocation for PG&E’s natural gas transportation business. PG&E  
16 has the LRMC/NCO method for the cost allocation of its natural gas distribution base  
17 margin, while the EC method is used for its transmission and gas storage functions.  
18 The latter was adopted pursuant to the original PG&E Gas Accord in 1997, and  
19 subsequent extensions, as approved by the Commission.<sup>15</sup>

20 The Commission should reject SoCalGas’ proposal and retain the  
21 LRMC/NCO method as recommended by DRA. SoCalGas has failed to prove that  
22 its’ proposed “compliance” or preferred methodologies are just and reasonable.  
23 Below, DRA explains each proposed methodology and the reasons why neither the  
24 “compliance” nor “preferred” cases are just and reasonable.

### 25 **1. LRMC/Rental (Compliance Case)**

26 The Commission first adopted the LRMC methodology to allocate SoCaGas’  
27 base margin costs in D.92-12-058, and this has been the cost allocation method for

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<sup>14</sup> See Ruling, p. 7.

<sup>15</sup> See original Gas Accord approved in D.97-08-055.

1 SoCalGas for the past 15 years. However, in this application, the Applicants claim  
2 that the adopted methodology that the Commission has been using for 15 years “no  
3 longer reasonably represents the true marginal costs of serving their customers.”<sup>16</sup>

4 Ms. Allison Smith’s Direct Testimony on LRMC on behalf of SoCalGas states:

5           SDG&E and SoCalGas believe that the Commission’s  
6           methodological evolution in its application of LRMC for  
7           cost allocation in BCAPs over the last 15 years has  
8           resulted in measures of cost that no longer reasonably  
9           represent the true marginal costs of serving their  
10          customers.

11          SoCalGas cites examples of how the Commission deviates from the utilities’  
12          interpretation of LRMC efficiency principles.

13          First, SoCalGas cites the Commission’s adoption of the new Customer Only  
14          (NCO) method for marginal customer costs.<sup>17</sup> SoCalGas asserts that the NCO  
15          methodology does not capture all the underlying cost to serve all customers.  
16          According to SoCalGas, this results in requiring a much larger scale adjustment to  
17          achieve the utility’s revenue requirement and does not give efficient price signals to  
18          customers considering new hookups.<sup>18</sup> SoCalGas explains:

19               The NCO method does not give efficient price signals to  
20               customers considering new hookups because the  
21               approach ensures that they will never pay the full costs  
22               incurred to hook up to the utility’s gas system. Other  
23               customers will always pick up the majority of those costs.  
24               This occurs because the NCO method takes the full cost  
25               per customer to hook up a new customer (not the  
26               annualized cost) and multiplies that value only by the  
27               average number of new customers to be added in that  
28               class. Therefore, this method (except where the growth  
29               rate of a customer class is very high) will significantly  
30               understate true marginal customer-related costs, thereby  
31               artificially lowering core rates.

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<sup>16</sup> Prepared Direct Testimony of Allison F. Smith in A.08-02-001 on SoCalGas LRMC as Revised October 2008, p. 3.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid., p. 4.



1           Therefore, with regard to the derivation of its LRMC customer costs,  
2       SoCalGas supports the use of the rental method over the NCO method to calculate  
3       marginal customer costs.<sup>19</sup>

4           Second, SoCalGas asserts that “the inclusion of replacement cost adders in  
5       the marginal cost computation effectively moves the resulting costs farther away  
6       from true marginal costs.”<sup>20</sup> The utility explains that since LRMC makes use of the  
7       Real Economic Carrying Charge (RECC) to annualize plant investment costs, the  
8       methodology already accounts for replacement costs, and thus, “adding in a  
9       separate and explicit adjustment for distribution replacement costs double counts  
10      these costs.”<sup>21</sup>

11          Third, SoCalGas claims that “consumer groups have introduced “proxies” for  
12      transmission and storage resource plans in cost of service and BCAP  
13      proceedings.”<sup>22</sup> SoCalGas alleges that “the Commission has included the costs of  
14      these proxies in rates, even though these proxies are not based on system  
15      requirements but have rather been included to justify shifting costs to the noncore  
16      class.”<sup>23</sup>

17          In data responses to DRA, SoCalGas provides two additional examples of  
18      elements of the current LRMC methodology that are supposedly inconsistent with  
19      LRMC efficiency principles. According to SoCalGas, “The Commission adopted the  
20      1-in-35 Peak Day Marginal Demand measure instead of peak hour in allocating  
21      medium pressure distribution costs.” In SoCalGas’ opinion, this is not consistent  
22      with marginal cost theory or cost causality.<sup>24</sup> Moreover, SoCalGas states that “The

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<sup>19</sup> Ibid., p. 5.

<sup>20</sup> Ibid., p. 4.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid. p. 5.

<sup>23</sup> Ibid.

<sup>24</sup> SoCalGas Response to DRA Data Request PZS7-1.

1 scaling of revenues up or down depending on the under collection or over collection  
2 of revenues...results in greatly fluctuating scaling.”<sup>25</sup>

### 3 **2. Embedded Cost (Preferred Case)**

4 In lieu of the Commission-adopted LRMC, SoCalGas proposes that the  
5 Commission adopt the Embedded Cost methodology to allocate all base margin  
6 costs to its customers.<sup>26</sup> In advocating the use of the EC method of allocation,  
7 SoCalGas’ witness Mr. Herbert Emmrich cites what he deems to be the advantages  
8 of the EC over the Commission-adopted LRMC. First, “Since these costs are  
9 recorded costs, they are objective and fully verifiable through review of SoCalGas’  
10 detailed accounting records.”<sup>27</sup> Secondly, Mr. Emmrich claims that the EC method  
11 results in costs that are “closely aligned with SoCalGas’ total revenue requirements  
12 as evidenced by the relatively small 1.8% reconciliation factor, compared to the  
13 larger 20% negative “scale” adjustment required in the SoCalGas’ LRMC study.”<sup>28</sup>  
14 Third, Mr. Emmrich asserts that “The average costs derived from this ECS  
15 (Embedded Cost Study) diverge less from proper marginal costs.”<sup>29</sup> Fourth,  
16 SoCalGas states that the EC method is more easily understood by stakeholders  
17 because the “method is directly linked to recorded historical costs that are known  
18 and measurable.”<sup>30</sup> And lastly, SoCalGas claims that nearly all gas distribution  
19 utilities and pipelines in the US utilize embedded costs.<sup>31</sup> In addition, SoCalGas  
20 also cites the FERC and the National Energy Board of Canada as both relying upon

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<sup>25</sup> Ibid.

<sup>26</sup> Prepared Direct Testimony of Herbert S. Emmrich in A.08-02-001 as Revised October 6, 2008 on Embedded Cost Allocation, p. 1.

<sup>27</sup> Ibid., p. 11.

<sup>28</sup> Ibid. p. 11

<sup>29</sup> Ibid.

<sup>30</sup> Ibid., p. 12.

<sup>31</sup> Ibid., p. 8.

1 EC principles for purposes of setting interstate and inter-provincial gas pipeline  
2 rates.<sup>32</sup>

### 3 **B. DRA Discussion/Analysis**

4 DRA first notes that SoCalGas does not dispute the economic theory on  
5 marginal cost. SoCalGas has no disagreement about the economic benefits of  
6 marginal cost-based pricing nor the soundness of the underlying economic theory on  
7 marginal cost.<sup>33</sup> SoCalGas, however, takes issue with the way the cost allocation  
8 method based on the academic marginal cost theory is currently implemented in the  
9 real world by the Commission.<sup>34</sup> SoCalGas contends that the current application of  
10 the LRMC has deviated from basic economic efficiency principles and “no longer  
11 reasonably represent the true marginal costs of serving their customers.”<sup>35</sup> For the  
12 Commission to depart from its long standing 15-year approach, SoCalGas must  
13 demonstrate how and why LRMC/NCO no longer represents the true marginal costs  
14 of serving their customers. However, SoCalGas fails to prove its claim and  
15 therefore, the Commission should not adopt the proposed change in cost allocation  
16 methodologies.

17 The SoCalGas concerns on deviation from economic efficiency principles  
18 pertain to the proper marginal customer costs (the rental versus NCO), the  
19 appropriateness of replacement cost adders, the resource plans, and the impact of  
20 scaling to the utility’s total revenue requirement. DRA agrees with SoCalGas that  
21 these maybe matters of serious contention in the current Commission-adopted  
22 LRMC methodology. However, the Commission has already addressed and  
23 concluded on these issues. In so far as the replacement cost adders for gas  
24 marginal costs are concerned, the Commission’s findings in D.05-06-029 for the

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<sup>32</sup> Ibid., p. 9.

<sup>33</sup> Emmrich Testimony on EC, pp. 5-6.

<sup>34</sup> Ibid.

<sup>35</sup> Allison Smith Testimony, p.3

1 2005 PG&E BCAP bring some measure of closure to the issue. In that Decision, the  
2 Commission states in Findings Of Fact #14 and #15:

3 Economic literature does not resolve whether  
4 replacement costs are appropriately included in long run  
5 marginal cost calculations.

6 PG&E argues convincingly that replacement cost for  
7 distribution facilities are already recognized in marginal  
8 distribution costs.

9 And in Conclusion of Law #6, the Commission states:

10 The calculation of marginal customer costs for gas  
11 service should not continue to include a value  
12 recognizing replacement costs of gas facilities.

13 DRA has previously supported the inclusion of replacement cost adders but  
14 will not pursue them further for the gas utilities in light of the Commission  
15 pronouncements in the 2005 PG&E BCAP. It has been DRA's position that if the  
16 replacement cost adder is rejected for the demand-related function, then for  
17 consistency purposes, this should also be removed from marginal customer costs.

18 Briefly, there is a basic difference of approach in how best to measure the  
19 cost imposed by the addition of a new customer. Under the NCO method, the new  
20 Service, Regulator, Meter (SRM) cost is multiplied by the projected number of new  
21 customers to come up with a new customer cost. This cost is a total investment for  
22 new customers only in a given year, rather than an annualized cost for the  
23 investment. Under a rental method, the Real Economic Carrying Cost (RECC) is  
24 used to develop an annualized cost for the investment. This annualized cost is  
25 charged to all customers. SoCalGas asserts that, since the NCO does not use an  
26 annualized cost, the RECC factors are not part of the calculation. This is the  
27 fundamental difference between the LRMC/NCO and rental methodologies.

28 SoCalGas was asked whether the rental method as used by SoCalGas  
29 necessarily assumes that all customers are renters of equipment from SoCalGas  
30 without any choice to purchase their own set of new customer hook up equipment.  
31 Further, DRA asked whether in SoCalGas' opinion, it would be realistic to assume  
32 that all customers are renters of equipment, and if not, to explain why the rental

1 approach would make more sense than assuming that new customers could also  
2 purchase their own equipment. The SoCalGas response is given below:

3 It does not matter whether a customer is a renter or an  
4 owner. The LRMC to each is the same and the rent  
5 charged to a renter of a house is equal to the cost that  
6 owners incur by not renting their house out and using it  
7 themselves. This is the opportunity cost principle of  
8 economics. In other words, if I own a house free and  
9 clear of any debts and use it for myself, it costs me the  
10 rent that I could have charged a renter if I had rented the  
11 house out.

12 The Commission originally adopted the rental method in its LRMC policy  
13 decision. Prior to the last SoCalGas BCAP decision, that method has subsequently  
14 been replaced by the NCO method for every major gas and electric utility except  
15 SoCalGas. With the adoption of the Joint Recommendation in D.00-04-060, the  
16 NCO was also adopted for SoCalGas.

17 There is a long history of Commission precedents that explain its preference  
18 for the NCO over the rental method. The Commission best explains the meaning of  
19 this fundamental difference in methodology in the last BCAP decision:<sup>36</sup>

20 The proponents of the NCO method claim that the rental  
21 method is based upon an inappropriate theoretical  
22 foundation: a hypothetical competitive rental market with  
23 no opportunity to pay hookup charges or purchase the  
24 equipment. As a consequence, the rental method  
25 significantly overcharges customers.

26 The proponents of the rental method claim that it is the  
27 NCO method which is fatally flawed because it is the rate  
28 of growth of a particular customer class which drives the  
29 marginal cost estimates. As an example, they point to  
30 the impact that the NCO method had on the gas engine  
31 class following our initial adoption of the NCO method in  
32 SoCalGas' last BCAP. Because the NCO method  
33 resulted in an 80% increase for this class, we elected to  
34 retain the rental method (D.97-08-062). These  
35 proponents believe the NCO method is theoretically  
36 incorrect, is not based on cost causation, and sends  
37 inaccurate price signals...

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<sup>36</sup> D.00-04-060, pp. 26-28.

1 We then proceeded to analyze and reject each of these  
2 arguments finding: (1) that the NCO method fully  
3 comports with marginal cost pricing theory; (2) the rental  
4 method is premised on an assumption concerning  
5 opportunity value that does not hold for customer  
6 hookups; and (3) the rental method does not produce a  
7 competitive price for customer hookups and, in fact,  
8 significantly overstates the price that would prevail in a  
9 competitive market (Id., pp.403-404) In short, we  
10 considered and rejected each of the arguments being  
11 made in this proceeding...

12 Finally, the issue was revisited yet again in SoCalGas'  
13 1996 BCAP with both TURN and SDG&E proposing the  
14 NCO method and SoCalGas, ORA, and other intervenors  
15 supporting the rental method. The NCO method was  
16 again attacked on grounds that the rate of growth was  
17 the primary driver of the allocation and that small, rapidly  
18 growing customer classes could experience rate volatility.  
19 We adopted the NCO method finding that:

20 The NCO method is preferable to the rental method as it  
21 improves both the price signal sent to the customer and  
22 costing accuracy. Parties have not presented any new  
23 evidence in this proceeding that causes us to change the  
24 conclusion we reached in PG&E's last BCAP, D.95-12-  
25 058, or Edison's GRC, D.96-04-050. (D.97-04-082, Slip  
26 Opinion, p. 59.)

27 In this proceeding, the Applicants have not presented any new factual  
28 evidence or arguments with respect to the NCO and rental methods, and therefore,  
29 for the same reasons expressed by the Commission in the last BCAP, DRA  
30 continues to support the NCO method. Additionally, DRA notes that the two LRMC  
31 approaches result in substantially different marginal customer costs. For example,  
32 the marginal cost for SoCalGas' residential customers is \$84 per customer under the  
33 NCO approach and \$155 per customer under the rental approach (2009\$). The  
34 same holds true for the other customer classes, ie., the NCO cost is less than the  
35 rental cost per customer.

36 The LRMC/Rental method is further unjust and unreasonable because it  
37 would allocate about \$230 million more to the core class than under the LRMC/NCO

1 method for customer costs.<sup>37</sup> This makes a huge difference in terms of the marginal  
2 customer cost portion of the LRM methodology. Marginal customer costs are  
3 allocated based on the number of customers, and with core comprising the majority  
4 of SoCalGas customers, then the core will get more of the marginal customer cost  
5 assigned to their class the greater those costs become.

6 In addition to the question of whether or not the total investment for new  
7 customers should be annualized, another source of past differences between the  
8 LRM/NCO and LRM/Rental arise from the estimates for the cost of the SRM and  
9 the forecast of customers and demand. In this proceeding, DRA does not take issue  
10 with the SoCalGas estimates of the SRM, and its forecasts of customers and  
11 demand.

12 **There is No Empirical Evidence on SoCalGas Assertions of Price Signal**  
13 **Distortions**

14 In this application, the underlying reason that SoCalGas justifies its proposal  
15 to replace the LRM/NCO methodology is by claiming that the adopted methodology  
16 “no longer reasonably represent the true marginal costs of serving” its customers.  
17 SoCalGas’ reasons for changing to the EC method are mainly alleged distortions  
18 resulting from the Commission-adopted LRM and are not backed-up by empirical  
19 evidence. When asked about providing the specifics of the alleged distortions,  
20 SoCalGas states:<sup>38</sup>

21 The use of the NCO method vs. the rental method of  
22 allocating customer costs is a prime example of providing  
23 customers distorted cost signals as indicated by Ms.  
24 Smith in her direct testimony. Therefore, all rates adopted  
25 since 1992 in D.92-12-058 have provided customers with  
26 distorted cost signals. All documents related to BCAPs  
27 since 1992 are available in Commission filings. All rates  
28 shown in the final BCAP decisions since 1992 therefore  
29 have provided distorted price signals to customers.

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<sup>37</sup> Refer to Tables 3 and 4.

<sup>38</sup> Refer to SoCalGas Response to DRA PZS1-2.

1 Since the rates shown in the final BCAP decisions reflect just the rates, and  
2 they do not by themselves necessarily demonstrate that they provide distorted price  
3 signals to customers, DRA pursued the matter further and asked SoCalGas to  
4 substantiate its assertion in the above response with evidence of such alleged price  
5 signal distortion. To explain its assertions of price distortions, SoCalGas states in a  
6 data response to DRA:<sup>39</sup>

7 Rates in final BCAP decisions were based on a  
8 negotiated settlement not on economic efficiency  
9 therefore the rates provide distorted price signals.  
10 Economically-efficient price signals would mean  
11 rates are based on LRMC not negotiated rates in the  
12 BCAP process.

13 It is unreasonable for SoCalGas to expect the Commission to modify a long-  
14 standing cost methodology based on a speculative assertion. SoCalGas' assertion  
15 is difficult to validate because while all the rates adopted in previous BCAP decisions  
16 are documented, there is simply no adopted historical data that tracks the utility's so-  
17 called "true marginal costs" to enable the Commission to determine whether or not  
18 the adopted LRMC-based rates, or those that were the products of past negotiated  
19 settlements, deviate from the true marginal costs. Therefore, SoCalGas' claim is  
20 without merit.

21 SoCalGas should demonstrate how it measured or gauged the effectiveness  
22 of the current methodology against the utility's average intrastate rates. Economic  
23 theory would suggest that if the LRMC methodology were accurately translating into  
24 LRMC-based rates, those rates would provide effective price signals to customers  
25 that would guide natural gas consumption behavior.<sup>40</sup> Consequently, if those LRMC  
26 price signals were functioning effectively to inform the customer regarding the cost of  
27 the next additional therm of gas to be consumed, or the cost of the additional  
28 customer to be served, then those price signals would have enabled greater

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<sup>39</sup> Response of SoCalGas to DRA PZS5-2.

<sup>40</sup> In D.95-12-053, the Commission states that it selected marginal cost pricing "because we found it would send the most accurate price signal to customers regarding how much gas to use and when to use it."



1 operational efficiencies to the utility through time, and which in turn, would have  
2 gradually translated into savings via declining long run average intrastate rates to  
3 customers. At least based on economic theory, that is how the price signals are  
4 supposed to function and translate into lower long term rates and ensure the efficient  
5 allocation of all available resources to the benefit customers over the long run.

6 There is now a 14-year record for the Commission to review the Commission-  
7 adopted LRMC performance record for SoCalGas. But DRA would not recommend  
8 such a review of average historic rates to determine whether LRMC performed well  
9 to achieve its goals because one could easily conclude that the LRMC contributed to  
10 lower rates when in fact the lower rates may be the result of natural monopolies  
11 merely enjoying economies of scale. But mainly, a review of the historic record will  
12 not necessarily determine whether the price signals from the Commission-adopted  
13 LRMC-based rates in fact translated into lower long run average rates to customers  
14 over time, as economic theory would suggest.

15 It would be an oversimplification to conclude that the declining utilities'  
16 average intrastate rates over the 14 year period are attributable solely to the  
17 effectiveness of the LRMC allocation methodology.<sup>41</sup> First, gas distribution utilities  
18 are natural monopolies by nature. As such, the utilities' long run average costs will  
19 tend to show a slightly declining trend over time. This is an inherent tendency of  
20 utility monopolies due to efficiency gains from increasing returns to scale, or  
21 economies of scale. So, even if the recorded 14-year average intrastate rates of  
22 SoCalGas exhibit a declining trend, there is no basis to conclude that the LRMC-  
23 based rates should be given exclusive credit for a declining trend in average rates  
24 over time. The SoCalGas average intrastate rate went down from \$0.30 per therm  
25 in 1994 to \$0.17 per therm in 2007, or about a 57 percent decline over the period in  
26 constant 2007 prices. During the same period, the SoCalGas gas volumes  
27 increased from approximately 8,757,580 Mth in 1994 to 9,502,953 Mth in 2007, or  
28 approximately 8.5 percent increase during the period, that helped drive down the

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<sup>41</sup> DRA reviewed 15-year data on average intrastate transportation rates for the two utilities (SoCalGas, SDG&E) from 1993 to 2007 obtained as a Data Response to DRA by SoCalGas in A.07-12-006.

1 utility's average intrastate costs. While significantly expanding output and capacity,  
2 SoCalGas' total revenue requirement declined from \$2.6 billion in 1994 to \$1.6  
3 billion in 2007 (in constant 2007 prices).

4 Second, DRA notes that over the same period, the gas commodity costs  
5 gradually became a greater proportion of the utilities' total delivered cost of gas. The  
6 gas commodity cost is a separate cost that is not a part of the base margin nor of the  
7 calculation of the utility's average intrastate rate. The increase in the percentage  
8 share of the gas commodity portion was significant enough to make the total  
9 delivered cost of gas trend upward, effectively obscuring the declining trend in the  
10 SoCalGas average intrastate rate. From about only 45 percent of SoCalGas' total  
11 delivered cost of gas in the year 1993, the gas commodity gradually increased  
12 during the period to become the major portion of the total delivered cost of gas,  
13 rising to approximately 77 percent in 2007. It is not known whether this observed  
14 trend will continue in the future. These gas commodity costs are pass-through  
15 market-based rates thereby providing strong price signals to customers. With these  
16 market-based rates, the separate gas commodity portion bundled within the utility's  
17 total delivered gas rates serve as competitive price signals that influence customer  
18 consumption behavior to use energy more efficiently. Customers were receiving  
19 price signals that basically sent the message that the incremental cost of the next  
20 therm of gas consumption would cost more than the last one. But, as shown in  
21 DRA's review of the total delivered cost of gas, the price signals from bundled rates  
22 that show costs were trending up could very well have come from the market-based  
23 gas commodity portion which had become the major portion of the delivered cost.  
24 Whatever the source of the price signals, the customers thus far seem to be  
25 receiving them and responding accordingly.

26 For these reasons, one could argue that a review of historic average  
27 intrastate rates would be less meaningful to gauge the effectiveness of the current  
28 LRMC methodology for SoCalGas. Even SoCalGas acknowledges "It is impossible  
29 to determine with any precision how costs and rates would have been affected over

1 the years had the Commission correctly used LRMC to allocate costs and thereby  
2 set rates.”<sup>42</sup>

3 In the absence of any verifiable hard evidence to substantiate the price  
4 distortion assertions or the effectiveness of the current LRMC methodology, DRA  
5 cannot conclude that the Commission-adopted LRMC was a bad deal for customers,  
6 and hence, should be replaced. Neither has SoCalGas demonstrated why the  
7 LRMC/NCO should be replaced.

8 **The Commission’s Goals in adopting LRMC (NCO) Remain Important**

9 Further, as explained below, DRA continues to support the LRMC/NCO  
10 methodology for SoCalGas for other equally important reasons.

11 First, the 2008 Energy Action Plan Update states:

12 The state’s energy policies have been significantly  
13 influenced by the passage of Assembly Bill 32 (AB 32),  
14 the California Global Warming Solutions Act of 2006.

15 With the implementation of AB 32, the reduction of natural gas consumption  
16 resulting from greenhouse gas emissions is an important element of successfully  
17 addressing the environmental issues of the day. Natural gas, a relatively cleaner  
18 fuel, is undoubtedly going to be a critical part of the solution. Greenhouse gas  
19 issues are very much intertwined with increasing energy efficiency, and hence, we  
20 can say that efficient natural gas consumption is more important than ever. Price  
21 signals are one of the best ways to achieve energy efficiency aside from the already  
22 existing and contemplated programmatic measures. The recent Commission  
23 decisions to expand the Energy Efficiency and Low Income Energy Efficiency  
24 programs in D.08-09-040 and D.08-11-031, respectively, underscore the importance  
25 of achieving the Commission’s original goals in adopting LRMC. Therefore, the  
26 Commission’s original goals in adopting LRMC are still relevant today:<sup>43</sup>

27 First, economic efficiency dictates that rates be based on  
28 marginal cost, not embedded cost. Marginal cost reflects  
29 the cost incurred due to an additional unit of service

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<sup>42</sup> SoCalGas Response to DRA Data Request PZS7-10.

<sup>43</sup> D.86-12-009, p. 13.

1 being provided. Usage of the utilities' transmission and  
2 distribution system by each customer up to the point that  
3 the cost of the last unit's usage equals the benefit gained  
4 by the customer from that usage maximizes the benefit of  
5 the utilities' investment for all customers.

6 **Implementation Drawbacks Do Not Outweigh LRMC Benefits**

7 The implementation drawbacks of the LRMC pointed out by SoCalGas have  
8 not been shown to outweigh the benefits of the LRMC. As already explained, the  
9 concern relating to a separate replacement cost adder adjustment is already a non-  
10 issue in this proceeding. Further, the SoCalGas assertion that "consumer groups  
11 have introduced "proxies" for transmission and storage resource plans in cost of  
12 service and BCAP proceedings" is also a non-issue in this proceeding. DRA is not  
13 contemplating introducing any modification in the transmission and storage resource  
14 plans of SoCalGas or SDG&E in this BCAP.

15 Moreover, in the event that SoCalGas considers the marginal demand  
16 measure to be an important aspect of the inconsistency with marginal cost theory or  
17 cost causality, then SoCalGas has had ample opportunity to demonstrate the  
18 appropriateness of its opinion on the marginal demand measure ("MDM") for  
19 allocating medium pressure distribution costs. Ironically, SoCalGas does not  
20 challenge that distribution MDM in this proceeding. SoCalGas could have included a  
21 showing on that issue in its testimony or alternatively, it could file a separate  
22 application seeking to modify the Commission adopted MDM (of 1-in-35 Peak Day  
23 instead of peak hour) in allocating medium pressure distribution costs. DRA notes  
24 that in this very proceeding, the Applicants are requesting for adoption of the  
25 Commission adopted peak month as the local transmission service allocator.

26 Lastly, the SoCalGas argument pertaining to the "scaling of revenues that  
27 results in greatly fluctuating scaling", is another non-issue. Both the LRMC and EC  
28 methods use scaling to the extent that a reconciliation with the revenue requirement  
29 is necessary. Development of the storage revenue requirement is a good example.  
30 The LRMC marginal storage revenues have been scaled to match the storage  
31 revenues under the EC method. The scaling of revenues is for purposes of revenue  
32 requirement reconciliation and does not impact the relative cost burden for each  
33 customer class. Noting that demand elasticities are equal across customer classes,

1 the revenue scaling process via the Equal Percent of Marginal Cost (EPMC) assigns  
2 any additional revenue requirement in direct proportion to the marginal cost  
3 revenues of each customer class. As the Commission states in D.00-04-060:<sup>44</sup>

4 A scaling function is performed so that total revenue  
5 collected from the customers will meet the authorized gas  
6 revenue requirement. The ratio of the marginal cost  
7 revenue for each customer class versus the total system  
8 marginal cost revenue determines the EPMC scale. For  
9 example, if the core class is responsible for 80% of the  
10 marginal cost revenues, it will be allocated 80% of the  
11 revenue requirement.

12 In DRA's view, the LRMC/NCO implementation problems pointed out by  
13 SoCalGas have either become non-issues in this proceeding or have been resolved  
14 by alternative remedies, and therefore, do not diminish the advantages of the LRMC  
15 methodology.

16 The ability of the LRMC methodology to provide price signals is an important  
17 consideration. While the historical record of embedded costs may provide a good  
18 benchmark for a relatively short time period, it does not inform the consumer by way  
19 of price signals how much burden the customer's incremental future gas  
20 consumption will impose on the system, and therefore, will not help the customer  
21 purchase economically efficient levels of service. The Commission stressed the  
22 importance of price signals by stating:<sup>45</sup>

23 It is our belief that accurate marginal cost methods will  
24 lead to clearer signals when marginal cost-based prices  
25 are implemented, thereby providing the opportunity for  
26 customers to purchase economically efficient levels of  
27 service.

### 28 **No Change in Circumstances**

29 SoCalGas' application fails to assert or show that circumstances for  
30 SoCalGas have changed substantially to warrant a switch from the LRMC allocation  
31 methodology. However, they do assert that a majority of states' gas utilities have

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<sup>44</sup> D.00-04-060, p. 97.

<sup>45</sup> D.92-12-058, p. 16.

1 now abandoned LRMC in favor of the EC method. The reasons for the apparent  
2 exodus from LRMC by gas utilities may have been reasonable for those particular  
3 utilities based on the particular circumstances of those utilities. But regardless, this  
4 does not mean that circumstances have changed such that the goal of providing  
5 price signals is less important today.

6 As the dynamics of market supply and demand for gas continue to evolve, we  
7 see that gas prices continue to climb. It is therefore important for utilities to continue  
8 to send the appropriate price signals to consumers on the consequences of  
9 incremental natural gas consumption on their part.

#### 10 **SoCalGas Proposal Not Shown to Provide Benefits to Core Customers**

11 And finally, the SoCalGas preferred filing shows that the proposed EC will  
12 result in a greater cost burden on SoCalGas core customers compared to both  
13 LRMC methods. DRA's review shows that under the current LRMC/NCO method,  
14 the core customers will have approximately 85% share of the base margin while  
15 noncore customers will have approximately 15% share in this new BCAP period.<sup>46</sup>  
16 This is more beneficial to core customers than the results under the LRMC/Rental  
17 method. Under LRMC/Rental, core customers will have an 87.5% share of the base  
18 margin while noncore customers will have 12.5% share. On the other hand, under  
19 the proposed EC method, the core customers will have a greater share at 89.2% of  
20 the base margin while noncore customers will have a 10.8% share. Of the three  
21 methods, the proposed EC method will allocate the greatest share to the SoCalGas  
22 core customers. Therefore, the LRMC/NCO results in a clear financial benefit to  
23 SoCalGas core customers compared to those in both LRMC/Rental and the EC  
24 methods.

25 This is not to say that the EC cost allocation method adheres less to cost  
26 causation principles. Both methods are both anchored on cost causation principles.  
27 The primary difference between the two methods is that the EC relies on actual  
28 recorded cost of service while the LRMC relies on the incremental costs to provide  
29 the service. If one were to consider a one or two year time horizon, then EC could

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<sup>46</sup> Based on 70 Bcf storage assumption.

1 also provide realistic price signals as they would likely not deviate significantly from  
2 actual recorded costs within only such short period.<sup>47</sup> On the other hand, if the  
3 utility were planning for the longer term, in theory the LRMC methodology would  
4 provide efficient price signals because the cost of future resources to meet additional  
5 demand are factored into the cost allocation.

6 Based on the foregoing, DRA recommends that the Commission adopt the  
7 LRMC/NCO methodology for the cost allocation of the SoCalGas base margin.

8 In the alternative, should the Commission favor adoption of the EC over the  
9 LRMC/NCO, the Commission should require SoCalGas to modify its proposed EC  
10 methodology to provide a more equitable allocation to customers. The Commission  
11 should only consider adopting the proposed EC cost allocation for all the base  
12 margin of SoCalGas if certain modifications are made that, at a minimum, provide for  
13 the same percentage share of cost allocation as the LRMC/NCO shown in this  
14 testimony, and include:

- 15 1. An allocation of 50% of A&G costs on the basis of average year  
16 throughput on equal cents per therm (ECPT);
- 17 2. An allocation of the remaining 50% of A&G costs based on O&M  
18 costs by using the Multi-factor, including functionalization for FERC  
19 Accounts 920 (A&G salaries), 921 (Office Supplies & Expense),  
20 926 (Employee Pensions & Benefits), 931 (Rents), 408 (Payroll  
21 taxes), 932 (AdmGen Mnt-General Plant) and 389.1 thru 398  
22 (General Plant depreciation) instead of the Labor Factor, and for  
23 functionalizing the general plant returns and taxes;
- 24 3. An update of the service line footage to reflect the latest 2006 data  
25 instead of the 2001 data used in the study
- 26 4. An update of the storage functional factors based on the most recent  
27 storage cost data in the 2007 FERC Form 2 instead of the old storage  
28 data used that is based on 2006 FERC Form 2 data;
- 29 5. Use of the Average Year Throughput as the allocator (instead of Cold  
30 Year Throughput) for the backbone transmission base margin for  
31

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<sup>47</sup> The Commission somehow recognizes this in Finding of Fact #57 in D.92-12-058 where it states  
“Generally, the marginal costs for transmission and storage are higher than the book-valued capital  
assets while marginal distribution and customer costs are quite close to embedded costs.”

1 purposes of consistency with the allocator of the FAR revenue credits  
2 on transmission costs authorized in D.06-12-031 (FAR decision); and  
3

- 4 **6.** Use of the historical embedded cost of meters represented by  
5 SoCalGas' net book value of meters as allocator (instead of the current  
6 purchased costs of meters) for customer-related O&M costs for  
7 distribution meters and regulators.  
8

9 **IV. DISCUSSION / ANALYSIS OF THE RESULTS OF THE**  
10 **UPDATED COST ALLOCATIONS**

11 **A. DRA Review of SoCalGas' LRMC (Rental) Proposal versus**  
12 **the NCO Method**

13 The total Authorized Base Margin costs for allocation to SoCalGas' customer  
14 classes for 2008 are \$1,571 million.<sup>48</sup> The 2008 base margin is comprised of  
15 approximately \$952 million in O&M costs (roughly 60%), approximately \$653 million  
16 (roughly 40%) in capital & tax-related costs (return, depreciation, income and  
17 property taxes and payroll taxes), approximately \$64 million in miscellaneous  
18 revenues credit, and a Franchise and Uncollectible and reconciliation factor of \$29  
19 million. The amount of \$29 million is indicated as the amount necessary to reconcile  
20 the 2007 base margin to the one authorized for 2008 (but final number will be  
21 determined in the SoCalGas/SDG&E General Rate Case proceeding). The goal in  
22 this BCAP proceeding is to allocate the base margin to the various customer classes  
23 based on the extent to which each customer class imposes a burden on the system.  
24 To achieve this under LRMC, the calculated marginal unit costs will be multiplied by  
25 the marginal demand measures (MDMs). The MDMs are the forecasts of  
26 throughput which drive the utility's investment decisions to meet anticipated demand.

27 The summary of results for each customer class are shown in Tables 1 and 2.  
28 Under LRMC/NCO and a 70 Bcf of core storage, the core customers will get  
29 allocated 84.8% of base margin while noncore customers will get allocated 15.2% of  
30 base margin. On the other hand, under LRMC/Rental, the core customers will get  
31 allocated 87.5% of base margin while noncore customers will get allocated 12.5% of

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<sup>48</sup> Emmrich Testimony October 2008, p. 3.



base margin. Under a 79 Bcf of core storage assumption, the core customers will be allocated slightly more of the base margin, as shown in Table 2.

### **1. Marginal Demand Measures and Demand Forecast**

SoCalGas updated the Marginal Demand Measures (MDMs) - number of customers, cold year throughput, peak month throughput, and peak day throughput - for the new BCAP period. The SoCalGas demand forecast is presented in Mr. Herb Emmrich's testimony who is also the witness for Embedded Costs. DRA's analysis of the SoCalGas demand forecast is presented in DRA Exhibit No.2. SoCalGas has separated the use of its transmission system into backbone and local transmission service. SoCalGas has proposed to allocate local transmission service on a peak month rather than a cold year throughput basis. Therefore, in the current application, SoCalGas has used different allocators for the backbone and local transmission. Backbone transmission is allocated based on Cold Year Throughput. Local transmission is allocated based on Peak Month Throughput.

DRA's review shows that the Embedded Cost and Long Run Marginal Cost studies use the same allocators for each function as shown in the Table below.<sup>49</sup>

Customer-related	# of customers
Medium Pressure Distribution	Peak Day Throughput
High Pressure Distribution	Peak Month Throughput
Transmission	
Backbone	Cold Year Throughput
Local	Peak Month Throughput
Storage	Allocated capacities
Non-Energy Efficiency Cust Serv	Special study

However, DRA is not convinced that it is appropriate to use the same allocation factors used for the LRMC methodology, for purposes of allocation on

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<sup>49</sup> Refer to SoCalGas Response to DRA PZS4-2.

1 an EC basis since the focus of the EC study is not on the marginal demand and  
2 costs. For example, the distribution and transmission systems actually serve a  
3 dual role, by serving not only peak day and/or month requirements but also  
4 supporting the daily needs of all customers. Therefore, DRA maintains that an  
5 alternative allocation of these costs under an EC allocation would be equitable  
6 and appropriate, such as a 50% allocation using average year throughput, and  
7 50% using the peak day and/or peak month requirements. Given limitations of  
8 time and DRA's focus on its LRMC analysis for SoCalGas, it has not fully  
9 investigated the applicability of the allocators proposed by SoCalGas for its EC  
10 allocation and reasonable allocation options.<sup>50</sup>

## 11 **2. Distribution costs**

12 DRA does not take issue with the results of the LRMC/NCO and  
13 LRMC/Rental method for marginal distribution costs. DRA agrees with the  
14 methodology and the inputs to the regression model given the forecast demand  
15 growth for distribution.

16 Based on established LRMC methodology, SoCalGas developed the  
17 appropriate marginal unit costs for each functional category. These costs were  
18 then escalated to 2009 dollars to reflect SoCalGas' estimated marginal unit cost  
19 for the BCAP period. Lastly, these marginal unit costs were multiplied by the  
20 appropriate MDMs to obtain the total base margin cost revenues for each  
21 function. In the case of the distribution function, SoCalGas split distribution costs  
22 between as customer-related or demand-related.<sup>51</sup> The marginal cost for  
23 distribution consisted of three types of costs: capital-related, direct O&M, and  
24 indirect O&M. The indirect costs are included by applying the O&M loaders as

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<sup>50</sup> For purposes of its EC analysis, DRA did use SoCalGas' proposed EC allocation factors but in doing so does not necessarily accept the reasonableness of these factors and may offer or support other allocation options at a future date.

<sup>51</sup> As established in D.92-12-058.

1 later explained. Further, SoCalGas developed separate marginal costs for  
2 medium pressure distribution (MPD) and high pressure distribution (HPD).<sup>52</sup>

3           The marginal cost for both an MPD and HPD consists of an annualized  
4 capital-related cost and the fully-loaded marginal O&M cost. SoCalGas used the  
5 standard linear regression model to develop the capital-related marginal MPD  
6 cost. The regression model uses the cumulative peak-day demand growth as  
7 the independent variable and the cumulative load-growth-related capital  
8 investment in the MPD system as the dependent variable. SoCalGas indicates  
9 that the load-growth-related investment includes new business, pressure  
10 betterment and meter and regulating station investment. The analysis period for  
11 the regression analysis is 15 years: 10 years of historical data (1997 – 2006) and  
12 5 years of forecast data (2007 – 2011). The resulting estimated coefficient of the  
13 independent variable represents the capital-related MPD marginal cost. DRA  
14 agrees with the methodology and the data used as inputs.

15           The marginal O&M costs for the MPD system include direct O&M costs  
16 and O&M loaders. The year 2007 recorded direct distribution O&M costs are  
17 allocated between medium-pressure and high-pressure systems based on the  
18 split in total distribution investment between the medium and high-pressure  
19 distribution systems.

20           The Marginal cost for the SoCalGas HPD was similarly developed.  
21 The coincident peak-month demand served off of the HPD system is used as the  
22 measure of customer load for the HPD system.<sup>53</sup>

23           Overall, the LRMC/NCO method results in a slightly higher cost  
24 allocation for core and noncore customers in terms of the share of the distribution  
25 function in the base margin. As shown in Tables 3 and 4, under LRMC/NCO, the

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<sup>52</sup> The Commission acknowledged in D.92-12-058 that it is appropriate for SoCalGas to do this

<sup>53</sup> Based on previous BCAPs, and consistent with D.92-12-058 methodology.

1 distribution costs (combined MPD and HPD) are allocated approximately 35.6%  
2 of the scaled base margin whereas under LRMC/Rental these are allocated  
3 approximately 26.3% of the same. By comparison, under the proposed EC, the  
4 distribution costs allocated to core customers would be 19.0% of the base margin  
5 costs. DRA would attribute this difference in allocations to the way the costs  
6 have been functionalized in the proposed EC methodology as discussed in that  
7 section. The MDMs that serve as allocator for distribution costs are the MPD  
8 peak day demand and the HPD peak month demand.

### 9 **3. O&M Loaders**

10 The three O&M loaders are as follows: the A&G loading factor, the general  
11 plant loading factor, and the materials and supplies (M&S) loading factor. These  
12 O&M loading factors were also used in previous BCAPs. DRA does not take issue  
13 with the results of the direct O&M costs and the O&M loaders used in the  
14 LRMC/NCO and LRMC/Rental calculations.

15 In developing the A&G loading factor, the recorded year 2007 A&G  
16 expenses have been classified as either marginal or non-marginal on an  
17 account-by-account basis. SoCalGas indicates that any costs that vary with  
18 either the size of labor force or the size of plant were classified as marginal costs.  
19 The proposed A&G loading factor (including payroll tax loader) is 30.48%.

20 SoCalGas calculated a weighted average RECC factor for gross  
21 general plant and then applied that factor to gross general plant in service as of  
22 December 31, 2007 to derive an annualized cost for general plant. This  
23 annualized general plant cost was divided by year 2007 net O&M expenses to  
24 derive the general plant loading factor. The proposed general plant loading  
25 factor based on year 2007 recorded data is 16.44%

26 To develop the M&S loading factor, SoCalGas used recorded year  
27 2007 M&S costs and allocated them based on gross gas plant in each functional  
28 category. Distribution M&S was further categorized as customer-related and  
29 demand-related distribution plant investment. The functionally allocated M&S

1 costs are annualized using an RECC factor, 12.97%, developed for M&S  
2 investments. The annualized M&S costs are then added to the marginal O&M  
3 costs for each function as part of the fully-allocated O&M costs.

#### 4 **4. Customer-related costs**

5 Customer-related marginal cost reflects “the cost of a customer’s access to  
6 the gas utility’s supply system”<sup>54</sup> The marginal customer cost is comprised of: (1)  
7 the marginal capital cost of service, regulators and meters (SRM) and exclusive-use  
8 facilities; and (2) the marginal O&M costs associated with SRM, Customer Services,  
9 and Customer Accounts. SoCalGas based their estimates on updates of the unit  
10 costs from purchase records of various meter sizes, types, and pressure levels. For  
11 service lines, the service line lengths, pipe types, and pipe diameter data, at the  
12 customer level, were extracted from SoCalGas’ service history file.

13 DRA’s review indicates that the average number of new customers in the  
14 period 2001-2007 were approximately 68,000 customers.<sup>55</sup> For this BCAP, the  
15 forecast number of new customers is approximately 78,944.<sup>56</sup> Core customers  
16 account for 99.98% of all SoCalGas customers. In the last 7 years since 2000, new  
17 customers have been added to the system at the rate of 1.3% a year on average.  
18 The forecast in this BCAP would increase new customers by 16% above the 2001-  
19 2007 average. DRA understands that the customer forecast is reasonable since it  
20 should be consistent with those used in the last SoCalGas GRC.

21 The average cost per hook up during the 2001-2007 period was about \$1,123  
22 per new customer.<sup>57</sup> In this proceeding, the one time hook-up cost under the NCO  
23 method is estimated to be \$1,228 on average for the residential class, an estimate  
24 which is close enough to the estimated hook-up cost in the year 2007.<sup>58</sup> DRA

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<sup>54</sup> See D.92-12-058, p. 38.

<sup>55</sup> Refer to SoCalGas Response to DRA PZS1-11.

<sup>56</sup> SoCalGas LRMC NCO workpapers.

<sup>57</sup> Ibid.

<sup>58</sup> SoCalGas LRMC NCO workpapers.

1 agrees with the SoCalGas customer investment cost estimates as well as the  
2 marginal O&M costs associated with the customer hook-up costs. As discussed in  
3 this testimony, it is the basic difference in the customer cost portion of the  
4 methodology between the LRMC/NCO and rental methods that results in a  
5 substantial difference in the cost allocation for core customers.

6 SoCalGas updated customer-class-specific O&M costs using year 2007  
7 recorded O&M expenses. SoCalGas developed O&M loaders and applied them to  
8 the direct O&M costs to derive fully-loaded O&M costs.<sup>59</sup>

9 The combination of marginal capital costs and the fully loaded customer-  
10 related marginal O&M costs form the total customer-related marginal cost for each  
11 customer class.

12 Overall, DRA's review indicates that under the LRMC/NCO, approximately  
13 36.4% of scaled total base margin costs are allocated to customer –related costs  
14 whereas under the LRMC/Rental, about 50.3% are allocated to customer-related  
15 costs. By comparison, the proposed EC method will allocate approximately 60% of  
16 the base margin to customer-related costs. The MDM that serves as the allocator  
17 for the marginal customer costs is the number of customers in each class.

## 18 **5. Storage Costs**

19 For purposes of this BCAP, the 4 Bcf of storage cushion gas was included in  
20 total storage capacities. SoCalGas clarified that the 4 Bcf of inventory associated  
21 with the Cushion Gas project is part of the total storage capacities for SoCalGas,  
22 which are reflected in the allocation of costs shown in their testimony.<sup>60</sup> This 4 Bcf  
23 of inventory capacity is part of the allocation of storage assets to the various  
24 functions – Core Seasonal Storage, Load Balancing, and the Unbundled Storage  
25 program. No special treatment was proposed for this capacity in this BCAP.

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<sup>59</sup> The SoCalGas customer-related marginal O&M costs consist of five components: 1) Customer Services, 2) Customer Accounts, 3) Meters and Regulators, 4) Service Lines, and 5) O&M Loaders. SoCalGas indicates that the first four components comprise the total direct O&M costs.

<sup>60</sup> Refer to SoCalGas Response to DRA PZS4-8.

1 The storage marginal cost was developed also on the basis of the total  
2 investment method. The SoCalGas witness for storage is Mr. Watson, who  
3 developed a 15-year resource plan for SoCalGas. Mr. Watson's storage resource  
4 plan includes the following capital investment: \$6 million for inventory, \$48 million  
5 for injection, and no investment for withdrawal. Mr. Watson further states that there  
6 will be no incremental O&M costs for any of the projects identified in his resource  
7 plan. Since there is no planned incremental investment for withdrawal, the marginal  
8 cost of withdrawal is presented based on the avoided cost methodology previously  
9 used by SoCalGas for storage functions when no capital investment was planned for  
10 that function.<sup>61</sup> DRA understands that even if these capital investments are  
11 included in these resource plans that are made part of LRMC calculations, the utility  
12 does not necessarily commit to actually making these capital investments.  
13 SoCalGas clarified that these resource plan forecasts are not actual forecasted  
14 budgeted spending.<sup>62</sup> SoCalGas states that storage resource plans are only best  
15 guess-estimates.<sup>63</sup>

16 The storage resource plan represents a best-guess  
17 estimate of the costs to expand storage capacities  
18 assuming sufficient long-term contract demand in the  
19 unbundled storage program exists to warrant such  
20 expansions. The per-unit cost of these storage  
21 expansions depends upon size of the expansion, which is  
22 unpredictable.

23 SoCalGas and SDG&E clarified that they use the demand forecast in  
24 conjunction with customer requests for service and contractual obligations in the  
25 planning and expansion of its transmission, distribution, and storage systems.<sup>64</sup>  
26 The proposed Settlement Agreement addresses the future expansion of the gas  
27 storage assets. In the proposed SA, SoCalGas agrees to make commercially

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<sup>61</sup> SoCalGas states this is the same methodology it used in the 1999 BCAP.

<sup>62</sup> Refer to SoCalGas Response to DRA PZS1-11.

<sup>63</sup> Refer to SoCalGas Response to DRA PZS1-3.

<sup>64</sup> Refer to SoCalGas Response to DRA PZS5-3.

1 reasonable efforts to expand its storage inventory at its four existing storage fields  
2 by 7 Bcf over the period 2009-2014.<sup>65</sup> Likewise, SoCalGas agrees to expand  
3 injection capacity at its Aliso Canyon storage facility that is expected to expand  
4 injection capacity by about 145 MMcfd. If approved by the Commission, then any  
5 expansions during the term of the SA will occur under the EC method. Since the EC  
6 method uses historical costs, no storage resource expansions are included in the EC  
7 calculations in this proceeding. DRA's review indicates that the LRMC storage  
8 calculations (under both NCO and rental) include a 1 Bcf incremental capacity for  
9 inventory that would require a capital cost \$6 million. The LRMC method provides  
10 an indication of how a future 1 Bcf incremental increase in storage inventory  
11 capacity will impact cost allocation for the different customer classes. Further, the  
12 LRMC storage calculations include a 150 MMcfd of incremental injection capacity  
13 that would require a capital cost of \$48 million. But to the extent the LRMC  
14 compliance case filed by SoCalGas uses the EC assignment of storage capacities  
15 and the costs for the gas storage function calculations and scales down those LRMC  
16 storage-related costs to the same amounts as those under the EC method, the  
17 additional cost imposed by the incremental increases in capacity are not reflected in  
18 the results of either LRMC/NCO or rental method. In short, the storage cost  
19 allocations under both LRMC methods and the EC are expected to be the same.

20 Should the Commission adopt the Settlement Agreement in Phase I of this  
21 BCAP, the cost allocation of the gas storage function will be based on embedded  
22 cost for the duration of the Settlement Agreement. The Commission should order  
23 SoCalGas to update the proposed cost allocation methods based on the combined  
24 core portfolio storage amounts pursuant to a Commission approval of the Settlement  
25 Agreement in BCAP Phase 1 of this proceeding. Should the Commission continue  
26 to adopt the LRMC/NCO method for the remainder of the SoCalGas base margin in  
27 Phase II of this proceeding, SoCalGas will have a cost allocation for its transmission  
28 and distribution based on LRMC/NCO. This approach is somewhat similar to that  
29 used by PG&E, i.e., it uses embedded costs for the gas storage function and the

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<sup>65</sup> See ALJ Wong's PD of Nov.4, 2008 that describes the SA provision.



1 LPMC for transmission and distribution functions, except that in PG&E's case, both  
2 transmission and storage are based on embedded costs while only the distribution  
3 function uses the LPMC/NCO method. The hybrid system has worked well for  
4 PG&E since the PG&E Gas Accord was first adopted in 1997 and subsequently  
5 extended.

## 6 **6. Transmission**

7 A separate transmission study (presented in Mr. Schwecke's testimony)  
8 shows that 57% of the integrated transmission system should be classified as  
9 Backbone Transmission and 43% should be classified as Local Transmission.  
10 Based on the 57%/43% split of Backbone and Local Transmission, the transmission  
11 resource plan has also been developed separately for each category. The marginal  
12 costs were also developed separately for the Backbone and Local Transmission.

13 SoCalGas uses the total investment method to determine the capital-related  
14 marginal transmission cost. Under the Total Investment Method, the cumulative  
15 transmission investment required to meet demand growth over a 15-year period is  
16 used to determine the capital-related marginal cost. The 15-year transmission  
17 resource plan presented by Mr. Bisi states that no capital investment is required on  
18 the Backbone transmission system to meet the expected incremental demand  
19 growth over the next 15 years. DRA notes that since 1992, SoCalGas has made  
20 substantial amount of capital investments to increase capacity on its backbone  
21 transmission system.<sup>66</sup> However, based on the demand forecasts reviewed by  
22 DRA's witness in this proceeding and Mr. Bisi's assessment that SoCalGas has  
23 sufficient capacity to meet such demand forecast, DRA does not take issue that no  
24 capital investment on the backbone is necessary. The adequacy of backbone  
25 transmission capacity is shown in Tables 1 through 3 of Mr. Bisi's testimony.<sup>67</sup>

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<sup>66</sup> Refer to SoCalGas Response to DRA Data Request PZS2-21b.

<sup>67</sup> Refer to Mr. Bisi's Testimony, pp. 5-6

1 For SoCalGas' Local Transmission system, Mr. Bisi has identified two capital  
2 projects with a total investment of \$91.4 million.<sup>68</sup> Again, based on the demand  
3 forecasts which were reviewed and found reasonable in DRA's Exhibit 2 and Mr.  
4 Bisi's assessment of the sufficiency of capacity under the 1 in 35 year cold day  
5 design but not under the 1 in 10 year cold day scenario, DRA does not take issue  
6 with the estimated additional local transmission investment. The need for local  
7 transmission investment is shown in Tables 4 and 5 of Mr. Bisi's testimony.<sup>69</sup>

8 The Transmission marginal cost consists of an annualized capital-related cost  
9 component and a marginal O&M cost component. The marginal O&M cost for the  
10 transmission system includes direct O&M costs and O&M loaders. The recorded  
11 direct transmission O&M cost for 2007 is \$53.2 million. The transmission marginal  
12 cost O&M cost reflects the total transmission O&M costs in FERC accounts 850-867,  
13 excluding compressor fuel and hazardous waste costs, which are not part of the  
14 authorized base margin. To develop the separate marginal costs for Backbone and  
15 Local Transmission, this direct O&M cost was split 57%/43%, as discussed above.  
16 The direct transmission O&M cost is then loaded with A&G, General Plant and M&S  
17 to determine the fully-loaded transmission O&M cost.  
18

## 19 **B. DRA's Review of the SoCalGas Embedded Cost Proposal**

### 20 **1. Summary**

21 DRA has reviewed SoCalGas' Embedded Cost proposal. In the event that  
22 the Commission favor adoption of the embedded cost methodology, DRA  
23 recommends the following modifications in order to provide a more equitable  
24 allocation to customers:

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<sup>68</sup> The LRMC calculations used a capital cost escalator applied on the \$91.4 Mn cost to bring the amount to 2009 price level of \$93.63 Mn as shown in SoCalGas LRMC workpapers.

<sup>69</sup> Ibid. pp. 6-7.

- 1 (a) That 50% of the A&G costs be allocated on an equal cents per therm  
2 (ECPT) basis. SoCalGas fails to present a detailed, accurate A&G  
3 study that clearly establishes the specific cost drivers for the A&G costs  
4 as the A&G factors contemplated by SoCalGas suggest. Absent such a  
5 detailed A&G cost study, DRA recommends that 50% of A&G costs be  
6 allocated on ECPT basis.
- 7 (b) That the remaining 50% A&G costs be allocated based on the O&M  
8 costs by using the SoCalGas Administrative & General (A&G) Multi-  
9 Factor, including those used for the functionalization of FERC Accounts  
10 920 (A&G salaries), 921 (Office Supplies & Expense), 926 (Employee  
11 Pensions & Benefits), 931 (Rents), 408 (Payroll taxes), 932 (AdmGen  
12 Mnt-General Plant) and 389.1 thru 398 (General Plant depreciation)  
13 instead of the Labor Factor, and for the general plant returns and taxes;
- 14 (c) That the service line footage be updated using the latest 2006 data  
15 instead of the 2001 data presented in the SoCalGas testimony;
- 16 (d) That the storage functional factors be updated using the most recent  
17 storage cost data for the 2007 FERC Form 2 information instead of the  
18 previous storage data used for the 2006 FERC Form 2 information;
- 19 (e) That the Average Year Throughput be used (instead of Cold Year  
20 Throughput) to allocate the customer-related costs for the backbone  
21 transmission base margin to the different customer classes for purposes  
22 of consistency with the allocator of the FAR revenue credits on  
23 transmission costs authorized in D.06-12-031 (FAR decision); and
- 24 (f) That the historical embedded cost of meters represented by SoCalGas'  
25 net book value of meters be used (instead of the current purchased  
26 costs of meters) to allocate customer-related O&M costs for distribution  
27 meters and regulators.

## 28 **2. Distribution Costs**

29 Similar to the LRMC that recognizes that the distribution function has a  
30 customer –related and a demand-related function, the proposed EC allocates the  
31 distribution O&M costs between customer-related and demand-related. The

functionalization of customer-related costs are based on a determination by SoCalGas' distribution staff experts.<sup>70</sup> A portion of distribution O&M is directly allocated as customer-related costs while the demand-related portion is further allocated between medium-pressure and high-pressure based on the percentage the distribution main footage. SoCalGas describes how O&M costs were functionalized and allocated under the EC approach:<sup>71</sup>

For O&M expenses, SoCalGas analyzed costs by FERC account, and by sub-account, for purposes of functionalizing these expense elements. The analyses were guided in part by the manner in which SoCalGas functionalized its associated plant. Wherever possible, direct assignments to a particular function were made in a manner consistent with SoCalGas' treatment of plant. Then, based on a review of distribution costs, SoCalGas determined that in some cases, the use of installed footage (for each sub-function) was appropriate to functionalize the remaining O&M expenses. Inherent in this approach is that the unit O&M expense level is the same between sub-functions within a particular function; e.g., between high and medium pressure distribution. SoCalGas considers this approach to be reasonable considering that certain field personnel are performing similar activities for service lines and distribution mains with the expenses recorded in the same account.

The basis for the direct allocation of distribution O&M accounts to customer-related costs are the SoCalGas special studies conducted by its distribution staff experts. None of the distribution staff studies were provided in this proceeding, and hence, DRA has no opinion on the conclusions derived from those studies by SoCalGas' distribution experts. Overall, based on the determination of its distribution experts, the distribution O&M expenses under the proposed EC method indicates approximately 75% is classified as customer-related distribution while the remaining 25% (both MPD and HPD) is classified as demand-related distribution.

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<sup>70</sup> Emmrich Testimony, p. 34

<sup>71</sup> Ibid., pp. 19-20.

### 3. Administrative & General (A&G) Costs

SoCalGas did not conduct a detailed cost analysis for the A&G costs. Its witness Mr. Herb Emmrich describes the type of treatment for the A&G costs under its EC proposal:<sup>72</sup>

Since not all costs can be simply assigned by a single factor, a compound allocation factor using two or more generalized allocation factors were combined together in recognition of the multiple bases upon which a particular cost element should be assigned to the various functions, cost classification categories, or classes of service contained in the cost study. This type of allocation factor recognizes that there is more than one cost driver that best captures the characteristics and activities of that cost element. The treatment of A&G expenses is a good example of this concept. Since these expenses are broad-based in nature and support a wide range of utility activities, the entire groupings of accounts, or certain specific accounts, were allocated on the basis of the combination of two or more generalized allocation factors. Portions of SoCalGas' and SDG&E's A&G expenses are treated in this manner,

The proposed EC makes use of several A&G factors for the functionalization of the base margin arising from A&G costs that amount to over \$337 million. These A&G factors as described in Mr. Emmrich's Testimony are the Labor Factor, the O&M factor, the Net Plant Factor, and the Multi-factor (the average of the first three factors).<sup>73</sup> The functionalization of the A&G costs is further described by SoCalGas:<sup>74</sup>

SoCalGas reviewed each of the twelve A&G accounts and compiled details on the nature of the activities and related costs contained in each account. This detail enabled SoCalGas to derive a functionalization factor for each account based on the predominant cost element(s) in each account.

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<sup>72</sup> Ibid., p. 16.

<sup>73</sup> Emmrich Testimony, pp. 20-22.

<sup>74</sup> Emmrich Testimony, p. 21.

1 DRA is concerned with the use of these A&G factors since it assumes that  
2 these A&G costs that are broad-based in nature and support a wide range of utility  
3 activities can somehow be traced back to specific cost drivers such as those relating  
4 to the number of employees, the O&M costs, the net plant values, and if none seems  
5 close enough as a cost driver, then to a combination of all cost drivers when the  
6 multi-factor is used. These cost drivers under the EC proposed A&G factors will  
7 functionalize approximately 66% of the A&G costs as customer-related. In this  
8 proceeding, none of these A&G costs have been shown to be specifically linked to  
9 these cost drivers. SoCalGas has not presented a detailed study of these A&G  
10 costs to support the functionalization based on the A&G factors suggested by its  
11 testimony. Absent a detailed and accurate A&G cost study, there is no basis for  
12 DRA to determine whether or not these A&G costs are being attributed to the  
13 appropriate A&G factors. DRA therefore recommends that 50% of the A&G costs be  
14 allocated on ECPT basis. This DRA proposal is consistent with the prior  
15 Commission adopted policy and methodology pertaining to the allocation of A&G  
16 costs under an embedded cost allocation method. The Commission states in D.86-  
17 12-009:<sup>75</sup>

18 A&G expenses are generally not broken into functions  
19 and classifications. Unfortunately, the staff, the utilities,  
20 and some other parties have simplistically classified  
21 these costs on the same basis as operations and  
22 maintenance (O&M) expenses are classified without  
23 providing any evidence that A&G costs are incurred on a  
24 similar basis as O&M expenses...We will adopt a  
25 compromise...50% of A&G expenses will be classified as  
26 commodity-related and allocated on an equal cents per  
27 therm basis, and 50% will be classified in the same  
28 manner as O&M expenses. This compromise reasonably  
29 balances the uncertainties in the classification of A&G  
30 expenses.

31 For the remaining 50% of A&G costs, DRA recommends that they be  
32 allocated using the A&G Multi-factor as presented in SoCalGas' testimony since all

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<sup>75</sup> D.86-12-009, p. 25.

1 of the O&M costs are represented by the multi-factor (it is the simple average of the  
2 Three (3) A&G factors presented by SoCalGas.

#### 3 **4. Customer Costs**

4 DRA's review indicates that under the proposed EC methodology, core  
5 customers will be allocated a greater share of the customer-related SoCalGas base  
6 margin compared to either the LRMC/NCO or LRMC/Rental. The proposed EC  
7 methodology will allocate about \$389 million more customer costs to core customers  
8 compared to the LRMC/NCO methodology.<sup>76</sup> The proposed EC allocates  
9 approximately \$159 million more customer costs to core customers compared to the  
10 LRMC/Rental methodology. The greater amount of customer-related costs allocated  
11 to core customers under the proposed EC can be traced back from the  
12 functionalization of the base margin costs where approximately 60 percent of the  
13 \$1.5 billion base margin is classified to the customer-related function. The  
14 customer-related costs of the base margin amount to approximately \$946 million  
15 under the proposed EC. Since the allocator for the customer-related costs is based  
16 on the number of customers in each class, and given that the core customers  
17 outnumber the noncore customers, then the majority of the \$946 million classified as  
18 customer-related costs would be allocated to core customers under the proposed  
19 EC. These proposed EC allocators to customer classes for customer-related costs  
20 are based on the percentage share of each class in the cost of new meter  
21 purchases, service line lengths dedicated to the class, customer account numbers,  
22 historical cost of meters, distribution O&M costs, number of customers, and PACER  
23 volume and hours. These proposed allocators are predominantly core customers by  
24 sheer volume. All these proposed EC allocators suggest that core customers cause  
25 nearly all of the base margin costs and ensure that these costs are assigned to their  
26 class. DRA disagrees that all these proposed EC allocators for customer-related  
27 costs are appropriate. For instance, using the percentage share of each class in the  
28 cost of new meter purchases to allocate customer O&M would necessarily assume  
29 that all customers purchase new meters. In reality, that is not the case since only a

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<sup>76</sup> Refer to Table 3 and 4 in this Testimony.

1 very small percentage are new customers in a each year. DRA will not provide a  
2 review of each proposed allocator since the proposed EC methodology is not being  
3 recommended by DRA.

#### 4 **5. Storage**

5 The proposed EC would allocate the same percentage share of  
6 storage costs as the proposals under the LRMC/NCO and LRMC/Rental methods.  
7 This is because the storage costs under SoCalGas LRMC proposal are scaled down  
8 to exactly match those in the proposed EC and are based on the same gas storage  
9 capacity reservations. DRA's review shows that under a 70 Bcf combined core  
10 storage assumption, the proposed EC will allocate about \$47.8 million to the  
11 combined core storage reservation for SoCalGas and SDG&E, \$10.2 million for the  
12 balancing function, and about \$29 million for the unbundled storage program.<sup>77</sup> On  
13 the other hand, under a 79 Bcf combined core storage assumption pursuant to the  
14 Settlement Agreement in Phase I, the proposed EC will allocate approximately \$51.1  
15 million to the combined core storage reservation for SoCalGas and SDG&E and  
16 approximately \$25.6 million for the unbundled storage program, and \$10.2 million for  
17 the balancing function.<sup>78</sup> DRA understands that the SoCalGas storage calculations  
18 in the proposed EC are based on the storage cost analysis of FERC Form 2 2006  
19 recorded amounts rather than those in 2007 to match the updated 2007 data. The  
20 data used in the storage cost by product analysis should be updated if the proposed  
21 EC approach is adopted.

#### 22 **6. Transmission**

23 The transmission base margin costs are functionalized 100 percent to  
24 the transmission function. Similar to the LRMC, the allocators used for the  
25 transmission costs to the different customer classes under the proposed EC are cold  
26 year throughput (for backbone) and cold year peak month (for local transmission).  
27 DRA's only concern with the transmission cost allocator is its inconsistency with the  
28 allocator for the transmission revenue Firm Access Rights credits. In the FAR

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<sup>77</sup> SoCalGas Data Response to DRA PZS12-1.

<sup>78</sup> SoCalGas Embedded Cost Workpapers as Revised November 2008.



decision, the Commission approved the average year throughput to allocate FAR transmission credits.<sup>79</sup> If the proposed EC methodology were to be adopted, the proposed EC allocator for the transmission costs to the different customer classes should be made consistent with that used in the FAR decision.

## 7. DRA Modifications to the SoCalGas EC Proposal

The Table below presents the estimated impact of DRA's proposed modifications to the SoCalGas Embedded Cost proposal under a 79 Bcf core storage reservation:

<b>Table 7</b> <b>Allocation of Base Margin by Customer Class</b>				
<b>Customer Class</b>	<b>Embedded Cost Allocation (\$ Millions)</b>	<b>Average year throughput (MDth)</b>	<b>Cents/Therm</b>	<b>Percent of Total Cost</b>
Residential	\$1,105.5	2,484	\$0.445	70.4%
Core C&I	\$192.2	971	\$0.198	12.2%
Gas AC	\$0.1	1	\$0.049	0.0%
Gas Engine	\$2.1	18	\$0.115	0.1%
NGV	\$6.1	117	\$0.052	0.4%
<b>Total Core</b>	<b>\$1,305.9</b>	3,591	\$0.364	83.1%
Non-Core C&I	\$69.3	1,440	\$0.048	4.4%
Electric Generation	\$102.5	2,827	\$0.036	6.5%
EOR	\$6.8	156	\$0.044	0.4%
<b>Total Retail Non-Core</b>	<b>\$178.6</b>	4,423	\$0.040	11.4%
<b>Wholesale &amp; International</b>				
Long Beach	\$4.7	117	\$0.040	0.3%
SDG&E	\$49.0	1,227	\$0.040	3.1%
Southwest Gas	\$3.1	82	\$0.038	0.2%
Vernon	\$4.0	116	\$0.035	0.3%
DGN	\$2.0	54	\$0.037	0.1%
<b>Total Wholesale &amp; Inter.</b>	<b>\$62.9</b>	1,596	\$0.039	4.0%
<b>TBS Storage</b>	<b>\$23.5</b>	N/A		1.5%
<b>Total Base Margin</b>	<b>\$1,570.8</b>	9,611	\$0.163	100.0%

<sup>79</sup> Commission decision in the Firm Access Rights proceeding D.06-12-031, p. 92.

1    **IV.    CONCLUSIONS**

2            Based on the foregoing, DRA respectfully requests the Commission adopt the  
3    above recommendations.

**QUALIFICATIONS AND PREPARED TESTIMONY**  
**OF**  
**PEARLIE Z. SABINO**

- Q.1. Please state your name and business address.
- A.1. My name is Pearlle Sabino. My business address is 505 Van Ness Avenue, San Francisco, California 94102.
- Q.2. By whom are you employed and in what capacity?
- A.2. I am employed by the State of California at the California Public Utilities Commission (CPUC) as a Regulatory Analyst in the Division of Ratepayer Advocates (DRA).
- Q.3. Please describe your educational background and professional experience.
- A.3. I have an M.A. in Economics from Ateneo de Manila University and a B.S. in Business Economics from the University of the Philippines. I graduated from the Executive Training Program in Energy Planning and Policy of the University of Pennsylvania. I have worked for 19 years with the largest electric utility in the Philippines in various professional capacities in the areas of economic research, marginal cost studies, project evaluation, corporate budgeting and monitoring, and project financing.
- I joined the Commission staff in 1997. In the last 11 years, I have worked on a number of electric and natural gas matters including but not limited to the following: the review of utilities' gas supply plans in the procurement proceeding, SoCalGas' Gas Cost Incentive Mechanism, the review of BCAP applications, various gas transportation contracts (such as Guardian, Ruby, US Gypsum), the SoCalGas/SDG&E system integration and firm access rights proceedings, the Joint SCE/SoCalGas/SDG&E Omnibus proceeding, and the Joint Application for Public Purpose Program Cost Reallocation proceeding.
- Q.4. What is your area of responsibility in this proceeding?
- A.4. I am sponsoring DRA Exhibit No.3, which is DRA's Direct Testimony in A.08-02-001 Phase II on cost allocation issues for SoCalGas.
- Q.5. Does this complete your testimony?
- A.5. Yes, it does.

